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Erratum

"Reflection and transmission of shear waves in monoclinic media",
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The following corrections are made in the second part of the above-mentioned paper.

When an quasi-SH(qSH) wave is incident at the interface of two monoclinic media, it generates three reflected waves, namely, quasi-P (qP), quasi-SV (qSV) and qSH and three refracted waves qP, qSV and qSH (Figure 1). The following two equations are also to be considered alongwith equation (6) of the above-mentioned paper:

$$C_{22}\frac{\partial^2 u_2}{\partial x_2^2} + C_{44}\frac{\partial^2 u_2}{\partial x_3^2} + C_{24}\frac{\partial^2 u_3}{\partial x_2^2} + C_{43}\frac{\partial^2 u_3}{\partial x_3^2} + (C_{42} + C_{24})\frac{\partial^2 u_2}{\partial x_2 \partial x_3} + (C_{23} + C_{44})\frac{\partial^2 u_3}{\partial x_2 \partial x_3} = \rho\frac{\partial^2 u_2}{\partial t^2} \tag{C.1}$$

$$C_{42}\frac{\partial^2 u_2}{\partial x_2^2} + C_{34}\frac{\partial^2 u_2}{\partial x_3^2} + C_{44}\frac{\partial^2 u_3}{\partial x_2^2} + C_{33}\frac{\partial^2 u_3}{\partial x_3^2} + (C_{44} + C_{32})\frac{\partial^2 u_2}{\partial x_2 \partial x_3} + (C_{43} + C_{34})\frac{\partial^2 u_3}{\partial x_2 \partial x_3} = \rho\frac{\partial^2 u_3}{\partial t^2} \tag{C.2}$$

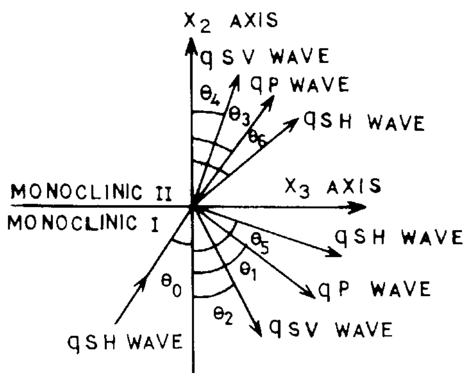

Figure 1. Geometry of the problem

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where $C_{ij} = C_{ji}$ and $u_i = u_i(x_2, x_3, t)$, are the displacement components. The boundary conditions will be

$$u_i^{(0)} + \sum_{j=1,2,5} u_i^{(j)} = \sum_{j=3,4,6} u_i^{(j)}, \quad i = 1, 2, 3$$

$$T_i^{(0)} + \sum_{j=1,2,5} T_i^{(j)} = \sum_{j=3,4,6} T_i^{(j)}, \quad i = 2, 4, 6 \tag{C.3}$$

The reflected and refracted coefficients of qP, qSV and qSH waves may be computed using (C.1)–(C.3) alongwith the balance in energy flux equation normal to the boundary. The numerical results are presented in Figures 2–7. The material constants of AT-cut quartz and lithium tantalate have been taken from Tiersten.[14]

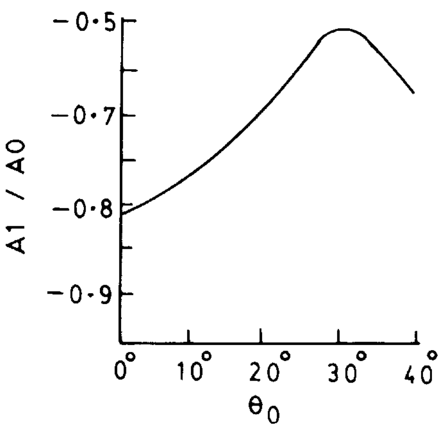

Figure 2. Variation of A1/A0 with θ_0

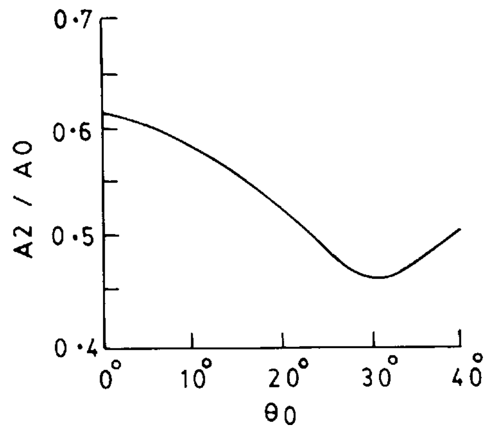

Figure 3. Variation of A2/A0 with θ_0

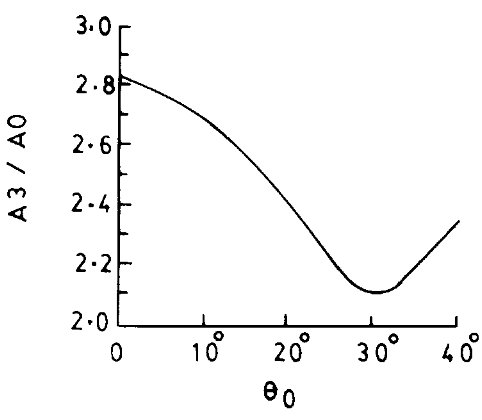

Figure 4. Variation of A3/A0 with θ_0

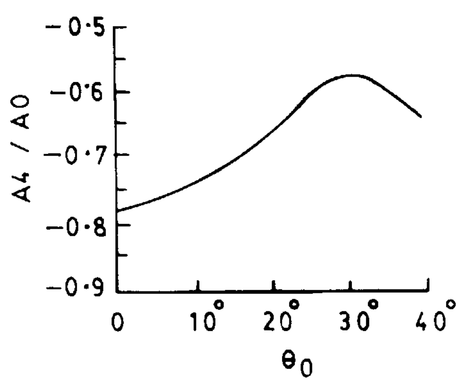

Figure 5. Variation of A4/A0 with θ_0

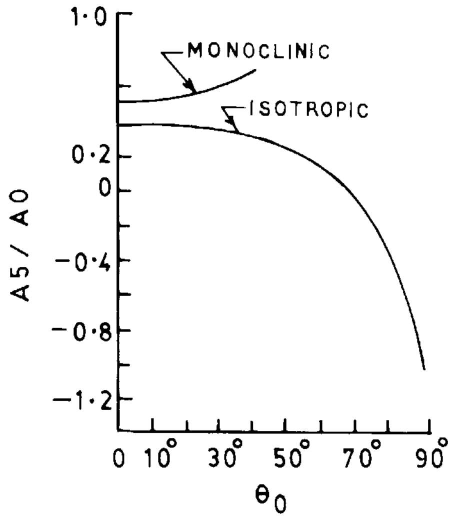

Figure 6. Variation of A5/A0 with θ_0

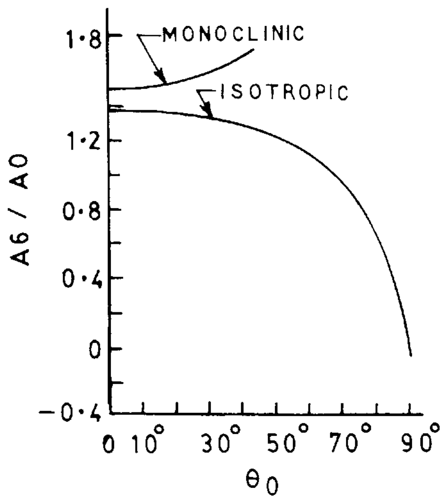

Figure 7. Variation of A6/A0 with θ_0